

REMARKS

The final Office Action of October 22, 2008, and the Advisory Action of January 17, 2008, have been received and reviewed.

Claims 23-27 and 29-64 are currently pending in the above-referenced application. Of these, claims 36-39 and 52 have been withdrawn from consideration, while claims 23-27, 29-35, 40-51, and 53-64 have been considered and stand rejected.

Reconsideration of the above-referenced application is respectfully requested.

Rejections under 35 U.S.C. § 112, First Paragraph

Claims 23 and 45 have been rejected for purportedly failing to meet the written description requirement of the first paragraph of 35 U.S.C. § 112.

Amended independent claims 23 and 45 are both drawn to methods for assembling semiconductor devices. Both of these claims recite that, at some point during the process, a back side of a second semiconductor device is set against discrete conductive elements that are located over portions of a first semiconductor device. Independent claim 23, as amended, further recites that adhesive material is introduced between the first and second semiconductor devices, while independent claim 45, as amended, requires that the back side of the second semiconductor device be set against the discrete conductive elements before adhesive material is present between the first and second semiconductor devices.

Fig. 14 of the as-filed application illustrates an embodiment in which a semiconductor device 30b is supported by discrete conductive elements 38a that are located at least partially over another semiconductor device 30a. *See also* paragraphs [0015] and [0059]. The discrete conductive elements 38a are the only things between the semiconductor devices 30a and 30b. Thus, in the embodiment that has been illustrated in FIG. 14 and described with reference to that figure, the back side of semiconductor device 30b is set against the discrete conductive elements 38a. In that embodiment, adhesive material 35' is introduced between the semiconductor devices 30a and 30b, as shown in Fig. 15; *see also*, paragraphs [0015] and [0060].

In view of the foregoing, it is apparent that the as-filed application provides an adequate written description of the subject matter recited in amended independent claims 23 and 45. As these claims comply with the adequate written description requirement of the first paragraph of 35 U.S.C. § 112, the 35 U.S.C. § 112, first paragraph, rejections of independent claims 23 and 45 should be withdrawn, and both of these claim should be allowed.

Rejections under 35 U.S.C. § 112, Second Paragraph

Claims 23 and 45 have also been rejected under 35 U.S.C. § 112, second paragraph, for reciting subject matter that is allegedly indefinite.

It is respectfully submitted that one of ordinary skill in the art would readily understand the meanings of the phrases “setting a back side of a second semiconductor device against... discrete conductive elements,” “introducing adhesive material between” first and second semiconductor devices, and “without adhesive material present on the active surface of the first semiconductor device...” Accordingly, it is respectfully submitted that the language recited in independent claim 23 and in independent claim 45 would be definite to one of ordinary skill in the art, and that both of these claims, therefore, comply with the definiteness requirement of the second paragraph of 35 U.S.C. § 112.

Withdrawal of the 35 U.S.C. § 112, second paragraph, rejections of claims 23 and 45 is respectfully requested, as is the allowance of both of these claims.

Rejections under 35 U.S.C. § 102

Claims 23, 24, 29, 30, 33, 40, 45, 46, 49, 50, 53, 59 and 61-64 stand rejected under 35 U.S.C. § 102(e) for being drawn to subject matter that is allegedly anticipated by the subject matter described in U.S. Patent 6,400,007 to Wu et al. (hereinafter “Wu”).

A claim is anticipated only if each and every element, as set forth in the claim, is found, either expressly or inherently described, in a single reference which qualifies as prior art under 35 U.S.C. § 102. *Verdegaal Brothers v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The identical invention must be shown in as complete detail as is contained in the claim. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Amended independent claim 23 recites, among other things, “setting a back side of a second semiconductor device against at least some... discrete conductive elements” and “introducing conductive material between” the first and second semiconductor devices. Amended independent claim 45 recites, among other things, “setting a back side of a second semiconductor device against... discrete conductive elements... without adhesive material present over the active surface of the first semiconductor device.”

Wu does not expressly or inherently describe, or anticipate, each and every element of either amended independent claim 23 or amended independent claim 45. Rather, the description of Wu is limited to disposing wires 32 *and glue* over a lower semiconductor device 28 before positioning an upper semiconductor device 34 thereover. *See, e.g.*, col. 3, lines 27-43.

It is, therefore, respectfully submitted that, under 35 U.S.C. § 102(e), independent claims 23 and 45 are both drawn to subject matter that is allowable over the subject matter described in Wu.

Each of claims 24, 29, 30, 33, and 40 is allowable, among other reasons, for depending either directly or indirectly from claim 23, which is allowable.

Each of claims 46, 49, 50, 53, 59, and 61-64 is allowable, among other reasons, for depending either directly or indirectly from claim 45, which is allowable.

In view of the foregoing, it is respectfully requested that the 35 U.S.C. § 102(e) rejections of claims 23, 24, 29, 30, 33, 40, 45, 46, 49, 50, 53, 59, and 61-64 be withdrawn, and that each of these claims be allowed.

Rejections under 35 U.S.C. § 103(a)

Claims 25-27, 31, 32, 34, 35, 41-44, 47, 48, 51, 54-58, and 60 stand rejected under 35 U.S.C. § 103(a).

Wu in View of Lee

Claims 25, 26, 31, 34, 35, 41-44, 47, 51, 54-58, and 60 stand rejected under 35 U.S.C. § 103(a) for reciting subject matter that is assertedly unpatentable over the subject matter taught in Wu, in view of teachings from U.S. Patent 6,388,313 to Lee et al. (hereinafter “Lee”).

Claims 25, 26, 31, 34, 35, and 41-44 are each allowable, among other reasons, for depending indirectly from claim 23, which is allowable.

Wu in View of Shim

Claims 27, 32 and 48 stand rejected under 35 U.S.C. § 103(a) for being directed to subject matter that is purportedly unpatentable over the teachings of Wu, in view of teachings from U.S. Patent 6,531,784 to Shim et al. (hereinafter "Shim").

Claims 27 and 32 are both allowable, among other reasons, for depending indirectly from claim 23, which is allowable.

Claim 48 is allowable, among other reasons, for depending indirectly from claim 45, which is allowable.

Withdrawal of the 35 U.S.C. § 103(a) rejections of claims 25-27, 31, 32, 34, 35, 41-44, 47, 48, 51, 54-58, and 60 is respectfully requested, as is the allowance of each of these claims.

ELECTION OF SPECIES REQUIREMENT

It is respectfully submitted that independent claims 23 and 45 remain generic to all of the species of invention that were identified in the Election of Species Requirement in the above-referenced application. In view of the allowability of these claims, claims 36-39 and 52, which have been withdrawn from consideration, should also be considered and allowed. M.P.E.P. § 806.04(d).

CONCLUSION

It is respectfully submitted that each of claims 23-27 and 29-64 is allowable. An early notice of the allowability of each of these claims is respectfully solicited, as is an indication that the above-referenced application has been passed for issuance. If any issues preventing allowance of the above-referenced application remain which might be resolved by way of a telephone conference, the Office is kindly invited to contact the undersigned attorney.

Respectfully submitted,



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